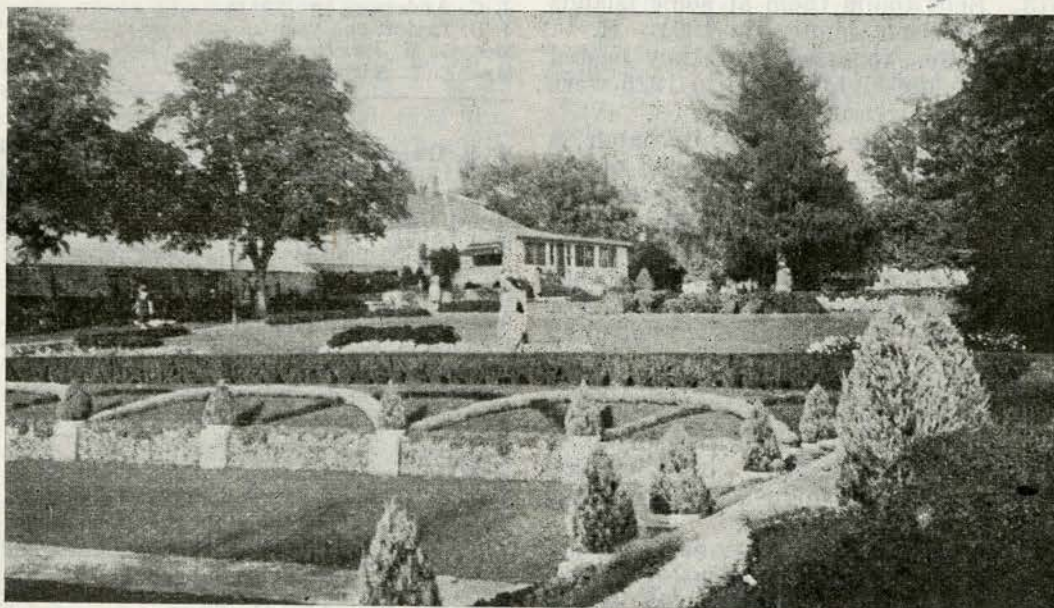


NORTH AND SOUTH DAKOTA HORTICULTURE

APRIL, 1944

*South Dakota State
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Scene in McKennan Park, Sioux Falls, with the
sunken garden in the foreground.

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THE BALDPATE

By
O. A. Stevens



O. A. Stevens

This duck is widely distributed and quite common. They nest as far north as northwestern Alaska and Hudson's Bay, southward into northern United States. In winter they range from Washington, D. C., south to Florida and from Vancouver to Panama. They are rated as common winter birds at Washington, D. C., through most of Florida and on the Louisiana coast. They were formerly very common in the Puget Sound region on the west coast in winter. I have no personal knowledge of them, and this article is prompted chiefly by a recent report on a closely related duck, the European widgeon.

Coues found the baldpates common birds when he was along the northern boundary of North Dakota in 1873. Bent found them at some islands in Stump Lake, Nelson County, in 1901. H. V. Williams of Grafton, reported that they nested in that vicinity in the eighties and in 1925 were still fairly common migrants.

The bird gets its name from a white patch on the forehead of the male. The front part of the wing also is white, the rear part (speculum) mostly black with a touch of green. Otherwise, it is a mostly gray bird and the females are difficult to distinguish from those of several other ducks. This bird is also called widgeon. Mr. Bent remarked: "The name widgeon is applied by gunners to various species of fresh water ducks, which they cannot recognize, especially to the females. This name does well enough in the fall and winter, * * * but when seen in the spring, in the glory of its nuptial plumage, with glistening white crown, the name baldpate seems more appropriate."

Mr. Bent recorded that they were late migrant and breeders, very few eggs being laid at Stump Lake before June 1. The birds nested there on some small rocky islands, overgrown with tall grasses and weeds. The nest and eggs are very much like those of the gadwall.

Baldpates feed largely on seeds and other plant material, secured in much the same manner as by the mallard. They are poor divers, and when they mingle with canvasbacks in winter, they make a practice of stealing the wild celery brought up by the canvasbacks. They are quite tame on their nesting grounds, but become shy

Vol. XVII

April, 1944

No. 4

Entered as second class matter at the Post Office at Sioux Falls, South Dakota, under the act of August 24, 1912. Original office of entry, Pierre, South Dakota.

Membership in the South Dakota State Horticultural Society is one dollar per year; fifty cents of this amount is for the subscription to "North and South Dakota Horticulture." The subscription rate for affiliated organizations is twenty-five cents per member, per year.

Published monthly at Sioux Falls, South Dakota, by the North and South Dakota State Horticultural Societies. Address all communications to W. A. Simmons, Secretary, Horticultural Office, Court House, Sioux Falls, So. Dak.

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during the hunting season, rising quickly and almost perpendicularly when disturbed. This characteristic has tended to rank them high as targets for the hunter.

The European widgeon is closely related and very similar in appearance. The male's crown patch is creamy-buff and the rest of the head is mostly reddish brown, lacking the gray lower part

(Continued on Page 63)

NEWSLANTS

By
Harry A. Graves



H. A. Graves

Plans are still being made for an annual get-together of the North Dakota Society on June 23 at Turtle River State Park. This park is located some 20 miles west of Grand Forks on U. S. Highway No. 2. W. R. Leslie and some of his staff are going to try and be present. Dr. Wilson Laird, State Geologist, plans to be present and tell of his geological findings in the park area. Also, we have traded a couple of horses with some of our Minnesota friends and have their promise to try and join us there. As far as the secretary is concerned, the program will be very informal. We know a lot of folks who would like to be present who won't be able to make it. However, our organization needs to hold an annual meeting. War time is no time to let down in our interest in anything as important as the many phases in the field of horticulture.

Stanley Saugstad, of Minot, has kicked off a drive for a new "Flora of North Dakota." Many folks have hoped that someone would take this step. This project is timely and very worth while. The present "Flora of North Dakota" by H. F. Bergman is out of print. It is also out of date. It never did contain a narrative description of the different species. Everyone is in accord that Prof. O. A. Stevens should author this proposed Flora. There are several possible ideas as to the type of manual that should be compiled. Prof. Stevens, who helped Bergman with the now out of print Bergman's Flora, has practically all the information necessary for the new publication. He has been collecting plant material ever since he came to N.D.A.C. in 1909. Most people I have talked with think this should be a completely new Flora of North Dakota by Stevens rather than a revised reprint of the old Flora. The publication would be of great value to all plant lovers in North Dakota and nearby states, to schools and colleges and agricultural workers. We hope all the smoke will lead to a fire that will really start something.

And speaking of books reminds us that Walter A. Simmons, son of Editor W. A., now has published his book, "Joe Foss, Flying Marine." I have a copy loaned me just now but won't get to read it until the Victory gardens are farther along. Authentic rumors, however, are that the book is a very interesting narrative of the goings

on of Ace Joe of Sioux Falls, South Dakota. Before they could get Joe to stop for a furlough he had swatted down some 26 Jap zeros. Latest dope is Joe is back where the Japs are not as plentiful as they once were and pursuing the remainder across the Pacific skies at the head of a squadron of other flying Marines.

And speaking of Walter Simmons, he also writes a column each Sunday in the Sioux Falls Argus-Leader. After reading this column, I know where Bob Hope gets the gags for his radio show. He just reads Walter's column for the previous week. It goes without saying that from a literal angle, Walter is a chip from the old block.

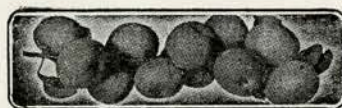
Cedric Adams, who has a daily column in the Minneapolis Star Journal, reports in his March 17 contribution that March 20-25 was "Protect the Toad Week." Anyhow, it was down in Georgia. Miss Lillian Stewart of that state has been the champion of the toads for 12 long years now. Her theme this year is "Toads for Victory." This is all aimed at the importance of toads in controlling insects in Victory gardens. She pleaded for especial kindness to toads March 20-25. I fear our toads were pretty meek that week. They were still cutting ice up here!

My plea for notes from the field has brought results. Mrs. J. B. Kelleher says she has grown real nice cauliflower at Hillsboro. Snowball variety—planted right out in the garden—thinned and dusted religiously, was more than just satisfactory. The soil was rich and some water was used. Utah green stalk celery grown in close formation and watered did very well also, yielding celery from late August until Christmas. Mrs. Kelleher wants to know if many people grow English Broad Windsor Beans. Drop us a line if you have.

Foxtail says: The feller that used to stand flat-footed for whatever he believed in, he has got to change his tacktacks. Nobody gets nowhere nowadays if he ain't on his toes.—Prairie Farmer

Toads have disappeared from some localities and no satisfactory explanation has yet been offered. The use of insecticides has been offered as one solution, but this would hardly cover sufficient territory to be a good reason in all cases.—Gardening.

Foxtail says: The CIO boys say they don't want nothing but higher wages and lower taxes. Thought we had them things already—we been votin' for 'em ever since I can remember.—Prairie Farmer.



GARDEN CLUB GLEANINGS

By

Mrs. G. M. Jorgensen

President's Message



Mrs. Jorgensen

South Dakota Federated Garden Clubs will begin their first year of plant and seed testing. Mr. Elton Shank of Brookings, the Vice President of the Federation, has been elected Test Garden Chairman. Outline sheets will be supplied in early spring, to each Test Garden Club Chairman, for distribution among the members of your club.

The cooperator will have the choice of testing new varieties or cultural methods by the comparative method. A treatment on any one variety may be determined only by treating half of the plants and use the remaining half for checks or controls; for a check plot is just as important as the treated plot.

For example, one may wish to test superphosphate on snap dragons. One plot is used for checking. It received no phosphate. Another plot had phosphate spaded into the soil at the rate of one-half pound for each twelve feet. Then the cooperator should report the date of the first bloom in each of the two plots.

As another example: a gardener may wish to test the value of peat as a summer mulch on lilies. Half of the lilies under trial should receive no peat, while the remaining half should be given peat. Notes should be made whether differences are observed or not.

Detailed information will be sent to you by Mr. Shank as to the plants the committee desires to test, and the methods you are to use. I am only briefly sketching an outline of the work that is to be done, for I feel that plant and seed testing offers unlimited possibilities for gardeners really interested in growing flowers and vegetables, and we can add to our knowledge much more quickly by well organized and cooperative plant testing.

It will be interesting to read reports from growers of small gardens from the four corners of the state. These reports will comprise a portion of our program when we meet for our annual convention in Vermillion. Every back yard may be a test plot for every flower lover.

Here is a job every club can do,
It's something old, nothing new;

It can't be done by just a few.
What can we expect from you?

Sincerely,

—Gertrude Michels.

More on Testing

Secretaries of the Federated Garden Clubs and other individuals received their invitations to enter the testing program early last month, and should have some testers from the clubs already at work. However, there may be some prospects who have hesitated to accept plant material for testing for one reason or another. From the report of Secretary Simmons I find that a false impression that "an acre or so of space would be required for testing." "Living on well planted properties where one almost needs to move the house out into the street in order to get space to plant, they could not see where they could give much space to anything new." There was "thunderous silence," according to Mr. Simmons, when the subject was first broached, "but after having it made clear to them that there would be only a plant or two, or a packet of seed per person, several volunteered to make the test." For my part, I cannot imagine any gardener who would not welcome any and every free seed, plant or cutting they could get hold of.

"Dakota" Federation

Ever since this Federation of Garden Clubs was formed last fall there has been some agitation to make it the Dakota Federation instead of the South Dakota Federation in order to include the clubs in our sister state to the north. This has always seemed the logical thing to do since the two states are closely allied in horticultural work and present their findings jointly through the pages of this little magazine. Then, too, the combined total of clubs in both states is far less than in most states. Encouragement in this idea has come from three North Dakota correspondents, Harry Graves, president of the 50-member Fargo Garden Club; Mrs. Grace Houck, secretary of that hundred—(and twelve)—volt Beach Garden Club; and from Reverend J. Ralph McNeil of the Carrington Club. May we hear from some more of you folks north of the border in regard to this prospective coalition?

Suggestions Wanted

To the secretary's desk have come reports that contain sage bits of horticultural wisdom, some that are full of humor, and some that are prose poems. We have received one poem, and a skit entitled "The Birth of a Year Book"; so what do you think we are looking for next? Now we want



contributions from our Artists, or at least an idea which an artist could interpret into a seal suitable to be used as an emblem for our Federation. We plan to make a contest of this, so put on your thinking caps and get ready to send in an entry while we perfect the details of this competition.

"My Garden Club"

I belong to a Garden Club,
Where I learn to know, and to grow
The flowers I love, the foods I can eat,
The trees and the shrubs and the grass at my feet.

I belong to a Garden Club,
Where I learn what the daffodil needs;
How to mulch the right way my strawberry bed;
And where to buy the best seeds.

I belong to a Garden Club,
Where friends who live close to the sod,
Love blue skies and sunshine, the rain, and the snow,
Are living the nearest to God.

—South Sioux Falls Garden Club.

I'm sorry the author of these lines wished to remain anonymous for they made such a good title for the garden club reports I just had to use them!

Centerville gets the center of the stage this month for sending in one of those year books that delight the seeker after poems, program titles and propaganda for the garden. It pleases me to see a club use some of my suggestions, but it gives me more of a lift to discover new ideas and originality of thought. In this booklet each and every month has a few lines of descriptive verse to eulogize it, and a sketch of blossoms or harvest indicative of it. It has two programs a month, and every one is intriguing as to titular phrasing as well as topical allure. The garden magazines, richest source of material, but one that is often ignored, is used as the basis for each topic. Let's peek at the most interesting items. Here's March:

Oh, March.

We know that thou are kind-hearted
Spite of ugly looks and threats,
And out of sight are nursing
April's violets!

May greets us with pink and yellow tulips; and random programs and roll calls are: Wear a Corsage of Your Own Making; Of Course You Can Grow Sweet Peas; When It's Breakfast Time in Your Garden; Grow Dahlias and Brag; What Vitamins Do and Don't; More Boners You Don't Want to Pull, and for a picnic, Let's Go Hoboing at the Beach. Mrs. Donald McMurchie is the able program chairman.

The spotlight must shine on another club this month at the cost of reducing several good reports from our members. While Spearfish does not now have a garden club, Mrs. B. F. Bettelheim tells a tale of their former club that rates immense applause for past accomplishments; and encouragement to lift the apathy that has fallen upon the members now. We were in Spearfish the summer of 1942 and noted the City Hall with its tight, new look, but had no idea that beneath its steel and stone lay buried the hearts and hopes of a dozen brave women of the city. These women had built a beautiful little band stand, covered it with bittersweet and other vines, seeded the lawn, planted a perennial border, shrubs, spruce trees and elms, laid stepping stones and built a fountain to make it the most attractive and popular gathering place in town, only to have all their loving work destroyed and swept away when the city decided to use this site for the new hall. A life-time lease to the land was disregarded in the process. Other projects just as ambitious, such as a zoning ordinance, transforming two waste lots into lovely parks, and planting a lane of trees to the cemetery, met with disasters in one form or another until the club became too discouraged to do anything more. Yet that inexplicable urge which forces all gardeners to help others see the beauty of growing things, is too strong to be entirely submerged, and the group still sponsors an annual flower show, even though they no longer act as a club. That is more than some clubs accomplish which consider themselves actively organized. I suspect that Mrs. Bettelheim herself is the source of the greatest enthusiasm and inspiration, and my advice would be to reorganize now, but not try to remake the whole town as part of the summer's work.

Yankton's new club has been organized with twelve of the strong and "silent" sex and one lone lady as members. Mr. J. O. Butts is secretary, Rev. H. N. Tragett, president, while George W. Gurney's shoulder has been at the wheel all the while.

Britton's Home Garden Club is growing, with several new members added. Flandreau's new officers are Mrs. W. N. Neptune, Mrs. F. McFarland, Mrs. F. J. Cherney. Vermillion is busy planning for the next state convention which will be held there. Dr. Christol is making arrangements for speakers with the theme stressing vegetables. In Sioux Falls John G. Friis, a wholesale seed man, has been a popular speaker at the Wednesday Afternoon Club and Sioux Falls Club. Branches of nineteen kinds of trees were brought by Oscar Ellefson of McKennan park, for identi-

(Continued on Page 59)



GARDEN NOTES

By
W. E. H. Porter



W. E. H. Porter

Who tends a garden says his
prayers
Without the benefit of beads or
priests or books;
His altars raise their candles
In many knee pressed nooks.

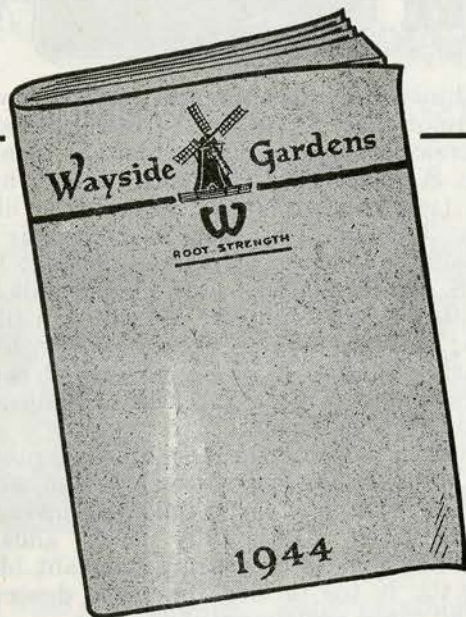
His incense veils and traces
The hymns on pansy faces.
And on the Sabbath day thru
aisles of pine and birch
With Enoch, he walks to wor-
ship in any man's church.

—Louise Seymour Jones.

These beautiful lines are found in Mr. F. L. Skinner's 1944 catalog; his address is Dropmore, Manitoba, Canada. Without overstatement I can say, that Mr. Skinner with his tireless research in Field Botany, has, more than anyone else, enabled us residents of the bleak prairie to enjoy the good things of fruits, flowers, shrubs and trees in a measure that pioneers of a generation ago would have pronounced unattainable. April's tidings of great joy is that winter's living death has passed and all those pleasant dreams of fire-side gardening with the catalogs, in which Wayside's reaches the climax, now bear fruition, the difference being that the latter, unlike the former, carries Adam's curse. It was a year ago when nursery stock commenced to arrive, I rather wondered what on earth had induced me to expand in such a manner, which doubts were dispelled by fall when all but one or two perennials had made a fine start in their new home. For it is in their second year that new plantings show returns. Like most everybody, I have odds and ends of waste spots where weeds and grass have to be scythed yearly, the net result of such labor being nil. With a judicious selection these eyesores can be changed to beauty spots. In this respect Oscar H. Will & Co. is my first choice for not only does he handle many of Skinner's and Morden Expt. Station's latest creations but iron clad hardness is a "sine qua non." Home surroundings without one or more, (best to have as many as you can) flowering crabs are sadly deficient and for me here is a golden opportunity to round out my collection with the remaining two of five listed on page 76, viz, the hawthorn (cut leaf) and red flesh, perhaps the most spectacular of all red flowers, pink meat and bronze foliage. A lilac can be fitted in anywhere successfully; on page 66 is listed Skinner's new hybrid Pocahon-

tas, early large trusses of very dark purple, the aforesaid par excellence provide sustenance for the soul and for the body, we find the large fruited Juneberry, known as Success. One never tires of scanning the pages of Wayside's dream book for 1944, tho for us Dakotans, pages 9 and 10 with their beautiful colored display of the season's flowers, must to a large extent remain an unfulfilled dream. But, with so many choices, the limitations of space, labor and income warn one not to bite off more than you can chew. Very intriguing is the hardy salmon-pink dwarf chrysanthemum *erubescens* Clara Curtis; it not only flowers in August and early September, thus forestalling any frost, the bane of mums and asters in N. D., but can be rested, dug up and potted, will bloom six months later indoors and while on the subject Mme. Chiang Kaishek is irresistible. Bronzed yellow, late August and September and indeed a place must be found for the rare Chinese dogwood *Kousa chinensis*, a release from the Arnold Arboretum and carrying Wayside's highest endorsement. What appeals to me is its ultimate height of 12 feet, large red berries like strawberries and flaming autumn foliage. The ensuing notes are chilly reading: Feb. 2nd. First spring flower, the fragrant canary yellow Queen of Spain narcissus 4 calendar months from time of setting. Feb. 5th. I pass the three score and ten mark. Noticed a strange phenomena on the window sill, the maiden hair fern seemed stirred by a non-existent breeze; it was a cluster of expanding fronds unfolding to the light which in airy abandon lengthen their emerald green filagree vertically and horizontally forming a veil thru which the winter sunlight filters. Feb. 8th. Winter prevails with blowing snow, cloudy sky and temp, around zero and in afternoon mock suns were visible. Another spring flower, the Angels tears narcissus, tho not fragrant, a much better window sill lily than the Queen of Spain, neat, not over 6-8 inches tall, with two large flowers of 3 inch diameter on stem, the calyx white and large frilled trumpet a pale lemon yellow, about 18 weeks from time of setting. Feb. 10th. 25 below zero at 9:30 a. m., light west wind, cloudless. In spite of a lignite fire, the kitchen froze considerably, only 2 plants to take the rap were the narcissi, even the flowers of which were frost resistant. **The Countryman** mentions a letter to the **Times** stating that the writer had a plant of scented musk, which clue being followed up revealed 4 cases in all, of faintly scented musk. I remember, as a boy, how scent from a bed of musk would be almost overpowering; sudden, the world over, must completely lost its fragrance. The last good whiff of musk that

(Continued on Page 60)



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MANITOBA NEWS LETTER

By
W. R. Leslie



W. R. Leslie

Lilacs perform in high excellence on the high lime soils of the prairies. Very few lilac species are lacking in sufficient hardiness for local conditions. Some of the early blooming types may have blossoms, during some springtimes, injured by late May frosts. This danger has contributed to the increasing popularity of later blooming types.

Of the 25 species of Wild Lilacs recognized by botanists, 23 are native to Asia. The other two, *Syringa vulgaris* and *S. josikaea*, are credited to Europe. Names are sometimes inappropriately applied. As examples, note the Persian Lilac which is from China, and the useful Chinese Lilac *S. chinensis*, which is a hybrid—Persian crossed with common, and developed in France by plant breeding.

The scientific word *Syringa* is from the Greek meaning pipe, referring to the stems. The common name Lilac may be from the Person word *Lilaj*, meaning blue tree. Lilac tribes are so various that some which under optimum conditions of growth have a maximum height of only 6 feet, while one species has reached 30 feet. The season opens from May 10 to 18, with Early lilac, *Syringa oblata*, and its varieties, five days later come the Early hybrids—the Hyacinth and Korean Early. Five days later the Common lilac, with its hundreds of varieties, blooms. In another 5 days come the Chinese *Saugeana*, Hairy, Littleleaf, Manchurian, and Persian. In about another 10 days the late lilacs flower. Included are the types known as Late, Hungarian, Preston, *Josiflexa*, Nodding and Chengtu. The very late lilacs blossom in late June to early July. They are the tall growing Pekin, Amur and Japanese Tree lilac. The low growing are Persian, and Hairy.

The booklet, *Lilacs of America*, published for the American Association of Botanic Gardens and Arboretums by Arthur Hoyt Scott Horticultural Foundation, Swarthmore College, Swarthmore, Pa., classifies a total of 640 varieties and species. That publication is authoritative and very valuable to the study of the increasingly popular lilac shrub.

Some of the prominent species and hybrids, with common and botanic names follow: Amur lilac, *Syringa amurensis*; Chengtu lilac, *S. swe-*

gingzowi; Chinese lilac, *S. chinensis* (*persica* x *vulgaris*); Common lilac, *S. vulgaris*; Cutleaf Persian lilac, *S. persica laciniata*; Early lilac, *S. oblata*; Hairy lilac, *S. pubescens*; Hyacinth lilac, *S. hyacinthiflora* (*vulgaris* x *oblata*); Hungarian lilac, *S. josikaea*; Japanese Tree lilac, *S. amurensis japonica*; *Josiflexa* lilac, *S. josikaea* x *reflexa*; Korean lilac, *S. oblata dilatata*; Late lilac, *S. villosa*; Littleleaf lilac, *S. microphylla*; Manchurian lilac, *S. velutina*; Nodding lilac, *S. reflexa*; Pekin lilac, *S. pekinensis*; Persian lilac, *S. persica*; Preston lilac, *S. prestoniae* (*villosa* x *reflexa*); *Saugeana* lilac, *S. chinensis saugeana*.

In the *villosa* division these species are placed—*josikaea*, *reflexa*, *sweginzowi*, *villosa* and *wolfi*.

The Amur lilac is a large bush, requiring a space about 12 feet. It is fully hardy, adds a charming billowy mass of creamy fragrant blossoms from top to toe in late June, and deserves a place on all large prairie grounds.

The Cutleaf Persian is small and dainty. The foliage is fine, being small and deeply lobed. Twigs are thin, and flowers mauve.

The season of blossoms opens with the early hybrids—Assessippi, a fragrant pinky-mauve, developed by F. L. Skinner; and Buffon, Catinat and Necker, all three being pinkish.

There are over 200 varieties of improved Common lilac at the Morden Station. A selection of excellent kinds follow.

White, single—Vestale, Jan Van Tol.

White, double—Edith Cavell, Ellen Willmott, Mme. Lemoine.

Violet, single—Dr Miribel, Cavour.

Violet, double—Marechal Lannes, Violetta.

Blue, single—Maurice Barres, Pres. Lincoln.

Blue, double—Olivier de Serres, Emile Gentil.

Lilac, single—Marengo, Jacques Callot.

Lilac, double—President Fallieres, Leon Gambetta, Victor Lemoine.

Pinkish, single—Lucie Baltet, *Macrostachya*.

Pinkish, double—Mme. A. Buchner, Montaigne.

Reddish, single—Marechal Foch, Mme. F. Morel.

Reddish, double—Paul Thirion, Paul Deschanel, Mrs. Edward Harding.

Purple, single—Monge, Mrs. W. E. Marshall, Ludwig Spaeth.

Purple, double—Paul Hariot, Adelaide Dunbar.

There are scores of other varieties that are pleasing. The above listings have all won high ratings and represent the upper aristocracy in lilacdom.

The hybrid late lilacs are gaining widely in

(Continued on Page 64)



THE USE OF TRANSPLANTS

By
Leon C. Snyder



The present war emergency has created considerable interest in vegetable gardening. A question frequently asked is: Should I use plants or seed directly in the field? To answer this question a number of things must be considered such as the kind of vegetable, the amount of available land for the vegetable garden, and the length of the garden season.

When to Use Plants

Dr. L. C. Snyder This will depend largely on the kind of vegetable. Many vegetables do best when seeded directly in the garden. Others are of too little value to warrant the use of plants. All long season crops such as celery, tomatoes, peppers and eggplant do best when plants are used. Some late tomatoes can be grown from field seeding but for an early crop plants should be used.

Cool weather crops like broccoli, cabbage, cauliflower and head lettuce should be grown from plants to insure a crop before warm weather. Some vegetables are difficult to transplant and little is gained by the use of plants. This is true of okra, cucumbers and melons. Onions may be grown from plants, sets or seeds. A surer crop can be obtained by using plants or sets.

How to Obtain Good Plants

If plants are used they should be vigorous and well hardened. A young vigorous plant is far superior to a larger, old, and overhardened plant. In our experiments, tomato plants 6 to 8 weeks old produced earlier marketable fruit a much higher total yield than plants that were 3 months old when set in the field.

Plants may be purchased or grown at home. For the average home gardener it is probably best to purchase plants from a local greenhouse. The greenhouse man has the proper facilities for growing the plants right. Let the greenhouse man know your needs early so he can have the right varieties and correct age plants on hand when you wish to plant. Another source of plants is the mail order house. In ordering from a mail order house be sure to order varieties adapted to your locality. There is also danger of plants arriving in poor condition due to faulty packing and slow transportation. Diseases are often introduced where plants are shipped in from the south.

Many people prefer to grow their own plants

and some are successful. It is very difficult to grow good plants in the house unless a large sun room is available. A hotbed or cold frame should be used for best results. Hotbeds differ from cold frames in that they are supplied with artificial heat either from fermenting manure, electricity or some other means.

Seeds may be sown directly in the hotbed or in small flats. Space the rows about 2 inches apart and cover the seeds lightly with a mixture of sand, peat moss and loam. Water thoroughly through a cheesecloth to prevent washing the seeds and cover the flat with a pane of glass. Protect from the direct sun by shading the glass with paper. When the seedlings start to come up remove the glass and give plenty of light to keep the seedlings from becoming spindly.

When the seedlings have their first true leaves they should be transplanted to the coldframe or hotbed. Here they should be spaced two inches apart each way, either in flats or directly in the bed. The plants may also be grown in individual containers. Veneer bands and specially treated paper bands are available for this purpose. The sash should be raised on warm days to prevent overheating and closed at night. Avoid sudden changes in temperature. About a week before time to set the plants in the field they should be hardened by withholding some water and keeping the sash off except on frosty nights. Allow about 6 to 8 weeks from the time of seeding to the time of setting in the field for most vegetables. Celery will need a few weeks longer.

Plant on a Cloudy Day

Plants may be set in the garden either in the evening or on a cloudy day. Avoid exposing the roots to dry soil or air. If the plants are in a flat it is best to take the flat to the garden and remove only a few plants at a time. A trowel is a good tool for transplanting. Scrape the surface dry soil away, and open a hole with the trowel. Insert the plant and press the moist soil around the roots. It is a good plan to water each plant with a half cup of water or "starter solution." The starter solution may be prepared by dissolving one pound of a complete 4-12-4 fertilizer in five gallons of water at least an hour before using. After the solution has soaked into the soil, rake a little dry dirt around the plant to keep the soil from cracking.

Foxtail says: Everybody on Squawberry Flat is kickin' about shoe rationin', includin' us that's all dressed up for Sundays when we've got a pair of rawhide sandals under our calluses.—Prairie Farmer.

LOOSE ENDS

By
H. R. Woodward



H. R. Woodward

One of the greatest values that comes to one in writing a column for a magazine like North and South Dakota Horticulture has been the satisfaction in receiving letters from all parts of the country concerning some of the material presented and realizing that whatever has been said, it has been incomplete. I have received correspondence from Massachusetts, Ohio and North and South Dakota and Nebraska. It has been

my philosophy at times to write about something that I think others will probably not and of course such things are quite apt to stimulate attention.

Dr. O. A. Stevens of North Dakota State College has mentioned some additional information concerning Mountain Mahogany, about which I wrote some months back. His son, who is an engineering editor in San Francisco, wrote as follows:

"I was particularly interested in the article about mountain mahogany. When I was in eastern Oregon (1935-36) we burned in the office stove a wood which the local members of our survey party called mountain mahogany. I had never heard of it before and supposed it was a colloquialism. The wood was extremely hard, even harder than ironwood, came in small logs not more than six or eight inches in diameter, and burned almost like coal. It is used quite commonly around Burns, coming from the low mountains nearby."

A few days ago I received a letter from George L. Evans, 400 E. 1st Ave., at Mitchell, S. D., wherein he states that he had been a foreman of an apple picking crew that was sent from Mitchell to Hurley to pick apples at the Alderman Orchard in 1912. That was a later year than the one mentioned by me in a previous article. The Mitchell Fruit and Grocery Company that year purchased the crop of 3,000 bushels on the trees at a contract price of \$3.00 a bushel. They were of Duchess, Wealthy, Whitney Crabs and Transparent Crabs varieties. It took about six weeks to harvest the crop and required about 35 pickers. The foreman, the driver for the dray and six others came from Mitchell, while the rest of the crew were picked up at Hurley. The apples were sorted, packed in barrels and sold by the barrel

and carload lot from Hurley as a shipping point. The culls were sold to a cider maker. He states that the crew was transported back and forth from town and that he has a picture of the crew with their names and also one of the dray which made the trip.

And, from the Southwest Pacific, in a rest area where my son is now after a year on Guadalcanal, he writes in part: "We took one long trip to a geyser basin about fifty miles away. It proved to be quite interesting as a matter of comparison with Yellowstone, but would really be quite insignificant if placed alongside of it. Most of the geysers have been soaped in order to get them to play. They forced one geyser to play for us by turning a small stream of water into its crater. We also visited one of the largest lakes on this island. The outlet to the lake had a rather beautiful waterfall but nothing to even compare with the upper falls of the Yellowstone. We had a cabin located right on the bank of a beautiful stream which abounded in all kinds of rainbow trout; one could take about five steps from our cabin door, cast a fly and catch 3 to 6 pound rainbows. We went deer hunting one day, but had poor luck and didn't see one. Wild pig hunting is also very popular down here, and the big tuskers are quite prevalent. The rest here is really wonderful but it will be entirely too short and the road will be rough ahead, as I imagine I will have another campaign under my belt before very long."

"I forgot to mention the huge forest plantations which I have seen in my travels. There must be millions of acres of young plantations, some of which are already merchantable. I counted the rings in a 17-inch log and there were only 22 of them. That is many times faster growing than any tree in the states. The main tree on the plantations is the *pinus radiata*, the *ponderosa*, the *Australis*. They also have some *eucalyptus*, spruce and hemlock mixed in. The amazing part of the plantations is the fact that they have been converted from brushland that was absolutely worthless, and they have no trouble in getting the trees to grow either."

A few days ago I received a letter from Otto Pfeiffer of Gordon, Nebraska, regarding water cress and I then realized that that story had been incomplete, also. Water cress is a hardy perennial which will grow luxuriantly when planted from seed along shallow streams fed by spring, because fresh water is absolutely necessary for its development, or the plants themselves may be transplanted from stream to stream. I have tried

(Continued on Page 64)



BEEBE'S PHILOSOPHY

By
H. E. Beebe



H. E. Beebe

Sam Bober writes: "Your February poem is too wintry as a blizzard is on, right now. My wife said it sure doesn't hurt Beebe any, writing about snow, what does he know about it, in California?" As Maj. Bowes used to say, "Alright, alright," so here, Mrs. Bober, is a poem which will suit, "I hope, I hope, I hope," quoting Al Pearce, whom I heard at Lockheed's Air plant canteen area, while eating lunch.

Jeanette Leader probably wrote the following after receiving one of Dybvig's rip-snorting revues:

There never was a garden so wonderful and clean.
The flowers are so much larger than the largest
ever seen.

No weeds, no imperfections—it makes my head
just hum

For I've made a perfect garden since the catalogs
have come.

Colorful cabbage, beautiful beets, pretty potatoes.

No, I'm not particularly advising purple cabbage, tho it tastes just as good as the white kind in the salads we get here in Hollywood. What I am after is making those vegetables pretty by planting flowers every seventh row, as per the August, 1942, issue.

In the May, 1943 issue, Mr. Leslie writes: "Harmonious companions are asparagus or Florence fennel with Cosmos; Parsley or carrots with Marigolds, either African or French; Parsley or carrots with Painted Daisy; and New Zealand spinach with Calendula." As vegetable candidates to replace garden flowers, while imparting color, he lists chard, beets, Kohlrabi, of the purple type and martynia, red cabbage, egg plant, sage and rhubarb. To this we might add okra for its attractive blossom. So now you have the blue print for a "glorious garden" for 1944.

Birds Best Bet

The Jan. 8th **Dakota Farmer** has a letter from our old friend Seth M. Hulburt, of Caputa, telling of his protecting his vegetable garden from grasshoppers by planting a lot of fruit trees, years ago—so many that part grew up wild, scraggly and close to the ground, grassy and weedy. All these SDAC sins resulted in a wild-life refuge and the greedy grasshoppers were met by business-like birds. It's worth your sending a nickel to Aber-

deen, S. D., for a copy, altho most of the readers of this magazine are probably like myself, long time subscribers and readers of this great earthy S. D. magazine. Stevens wrote: "We have a large collection of winter birds at the south window shelf," and "I think we had better invest in a peanut farm." Why not move to Washington, brother Stevens? Some of our bureaucrats do not seem to realize that we are in a bloody war that will take three South Dakota youths for each one that has been reported passing on with his face to the front. From the biological survey comes an additional dividend on the banding of birds by Mrs. Beebe and myself. May 1st, 1939, we put band No. 36-413813 on a bronzed Grackle which with others was hanging around a slat bin of corn in the back yard. On June 9th, 1943, Joe Nigg, living just east of Ipswich, found this bird, which evidently had been coming back each year, to see if we were still running a bird home. We stopped banding about two years ago, but this like many enterprises which yield no cash dividends, are seeds planted with no idea of returns, but lie dormant for one, two, maybe more years and unexpectedly there is a flower blooming. Talking of flowers, the aforesaid Jean presented the family and son Ed in particular with a flower, Latin name Edwardius Juniorus. It's one of those kind that remain closed in the day but how they open up at night. To him is dedicated this closing poem by Maurice Hewlett:

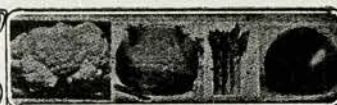
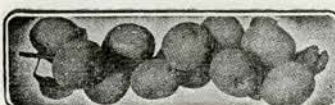
Sun and Moon, shine upon me;
Make glad my days and clear my nights;
O earth whose child I am,
Grant me thy patience!
O Heaven, whose heir may be,
Keep quick my hope.
Your steadfastness I need, O Hills;
O rain, thy kindness!
Snow, keep me pure,
O fire, teach me thy pride!
From you, ye Winds, I ask
Your blitheness.

Amen and Amen, as the preachers say.

(Continued from Page 53)

fication by the members. Mrs. W. M. Kellner presented members of her Rapid City Club with several potted plants. Dell Rapids enjoyed over a hundred Kodachrome slides "From Snowdrop to Christmas Rose" from Helen Field Fischer's garden.

Foxtail says: Been several bad hoss and buggy smashups on the flat here lately. The horses have got more sense than the drivers, but that ain't enough.—Prairie Farmer.



FRUIT AND VEGETABLE NOTES

By
F. X. Wallner



F. X. Wallner

Herb said to me, "I need none of your new-fangled scales to see if my pig is gaining weight. I just put a plank on a stool, put a rock on one end and the pig on the other and I shift the plank until they balance; I guess, the weight of the rock and I have the weight of the pig."

The last small onions brot the best price of all, and even daughter Margaret wired from San Francisco, to send all we had to a chain store there. Also the meat packers find that onions and garlic must go into sausage, not some ersatz imitation liquid. Those little yellow onions are literally gold nuggets; wish we had another carload or two. All markets are short of onions. The extreme prices in years past, as I recall, are 15 cents per bushel, and no sale, to 15 cents per pound, and only one onion of the pound fit to use. But what will be the prospect of a crop this year? It looks to me as tho a crop of the size needed cannot be produced, because there is no help to do the weeding of small seedlings during the long, hot summer months. It is much easier to grow a field crop where hand weeding is not necessary. On my return from Chicago, I made a side trip down to Moberly, Mo., to visit Patrick Shevlin and family, of the former Washington Dairy lunch of Sioux Falls. Coat collar turned up and hat down over my eyes, I rapped at the door, told him I had a meal down at his restaurant, but that I had no cash. Said I offered to wash dishes or give them a check, but instead, they abused me and threw me out. This sort of talk and argument got pretty loud and I saw that he was about ready to throw me out of the house, also, but he offered to give me something to eat if I went back to the restaurant. As I left, he rushed to the phone to get the particulars and before I got a block away he was after me. It was as interesting as the picture taking at Fisherman's wharf in San Francisco, and he thot it beat the third degree. I spent most of Sunday in Des Moines, because of poor train connections, but I had a talk with Mr. R. S. Herrick, Sec.-Treas. of the Iowa State Horticultural Society. I could get no satisfactory answer to the onion puzzle but he thot Sec. Fitch, of the Vegetable Growers, might solve my questions. Twenty miles east of Manilla, another connecting rod broke on the engine, the third in the

past two weeks, so my train was over three hours late, arriving at 4 a. m. There were no cabs or cars around at that hour, so I had a three-mile walk on a bitter cold night, lugging two heavy grips. Moral: If you don't know enough to stay home it will pay you to hire a guardian, charged with the duty of keeping you there. Back home, the cabbage seedlings are ready to transplant, peppers and eggplant will be ready the last week of March. The tomato seedlings will be transplanted all thru the month of April.

(Continued from Page 54)

I got was in year 1906 where a general store in Hansboro had some plants for sale. When visiting the old home in England in 1923 the bed of musk was scentless, no explanation has ever been offered for this strange phenomenon. Feb. 23rd. Our cold wave with some snow lingers, but temp. slowly rises above zero. Am in receipt of an interesting letter from a fellow member of Council Bluffs, Ia., Mr. Rapp, who has success with the red berried cotoneaster multiflora, which with the taller black berried acutifolia would make a pretty winter setting, berries of latter still cling to the bushes and climatic conditions in that part of Iowa seem to be as trying as here in North Dakota.

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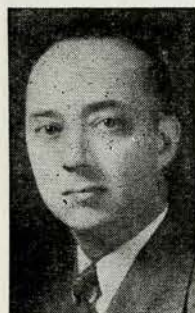
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HOW MAY ONE PRODUCE A SUPPLY OF FRUIT AT AN EARLY DATE

By
S. A. McCrory



S. A. McCrory
The reduction in the amount of locally grown fruit plus the increased price we must pay for fruits we buy has stimulated interest in fruit planting. Most people want an early return from a planting. With existing conditions it would seem more important than ever that we consider a planting this spring from which we may expect an early return. In this respect strawberries most nearly meets the requirement. Raspberries may also be counted on for an early return. The same is true of sandcherries and gooseberries.

Compared with other fruits, strawberries are a short time crop. While the yield will not be great, some kind of a crop may be expected from the everbearing type of strawberries the fall following the planting. This feature is frequently over-emphasized as the June bearing type will more than make up in total yield for space used. A row 200 feet long will produce enough for an average family. From limited observations at the Agriculture Experiment Station, Premier and Senator Dunlap can be recommended for general planting in all areas of the state. Better yields of high quality fruit have been given by Burgandy (a late variety), Pathfinder (mid-season) and Aberdeen (late). Fairfax is a very high quality fruit and excellent for freezing but has not given as great a yield as have the above named varieties.

By planting 50 plants of Premier, 50 plants of Senator Dunlap or Pathfinder and 50 plants of Burgandy or Aberdeen one could have a generous supply of strawberries over a period of at least one month. This would furnish the average family enough for preserving and freezing as well as for fresh use.

Raspberries are another short time crop. Some fruit may be expected in one year and with good growing conditions a fair crop may be expected. Once established the planting may be expected to produce for years. The fruit matures about the time the strawberry crop has been finished and continues with some fruit until late summer. Latham, Chief and Ohta are good varieties of red fruited type. Fifty plants located on a site with
(Continued on Page 64)

Hardy Lillies For Spring Planting

H. N. DYBVIG, COLTON, S. D.

AMABILE—Native of Korea and but recently introduced to cultivation, one of the easiest to grow. Blooms late in June, grenadine red. Flowering bulbs each 40c, large bulbs 75c. Plant 4 to 5 inches deep.

CERNUUM—This is a dainty little lily from Korea, very similar in form to *Lilium Tenuifolium* except that the flowers vary from pale pink to a lilac color, with deep purple spots. Plant 4 to 5 inches deep. Flowering size bulbs 75c each.

CONCOLOR—A native of China. The upright star-shaped flowers are a brilliant sealingwax red, height 18 inches, blooming in July. Very attractive and very hardy. Plant 3 to 4 inches deep. Flowering size bulbs 25c each, 6 for \$1.

DAVIDI—Native of western China. A very satisfactory lily which should find a place in every collection. Color red, blooms late in fall, just before the Tiger lily blooms. Plant 4 to 6 inches deep. Large bulbs 75c each.

MAXWILL—A cross by F. L. Skinner of Canada and is really an outstanding lily. Grows to a height of 6 ft., often having 50 or more flowers to a stalk; one of the best we grow. Large bulbs \$1 each.

SCOTTIAE—Another outstanding hybrid raised by Skinner of Canada. It has glossy dark green foliage, the flowers are of a bright orange color and face outward from the stem, 24 to 30 inches high. One of the real ones. Plant 4 to 5 inches deep. Large bulbs \$1 each.

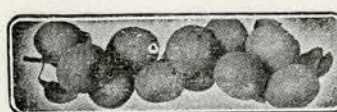
TENUIFOLIUM—Siberian Coral lily. A hardy and beautiful lily, having fragrant nodding flowers, petals reflexed, of bright red color in June. Plant 3 to 4 inches deep. 20c each, 6 for 75c.

WILLMOTTIAE—A new lily, native of western China. A really glorified Coral lily, growing to a height of 6 to 7 ft., producing up to 125 flowers on a single stem. I would call it a Wonder Lily. Plant 6 to 8 inches deep. Large bulbs \$1 each.

WILLMOTTIAE—Unicolor. A distinct variety of *L. Willmottiae*. Flowers are lighter in color and with few, if any spots. Also a very satisfactory lily. Plant 4 to 6 inches deep. Large bulbs \$1 each.

We also have single and double Tiger Lilies in blooming size bulbs. 20c each, 6 for 75c.

All prices are prepaid on all orders amounting to \$2 or more. Include 25c for postage and packing on smaller orders.

**BOOK REVIEW**

By
Mrs. F. Briley



Mrs. F. Briley

Edible Wild Plants of Eastern North America, by Fernald and Kinsey. Published by Idlewild Press, Cornwall-on-Hudson, New York. Price \$3.

This book is an assembly of what is known of the now neglected but readily available vegetable foods, some of which may yet come to be of real economic importance. Few of us realize the almost unlimited store of roots, new shoots, young herbage, and other possible wild foods which can safely and acceptably be brot to the table. We are, of course, familiar with the dandelion which has a regular place in the city market. You may have all that grow on the south slope of my yard at Dell Rapids, for the picking. Edible flowering plants and ferns are discussed in great detail. The longest chapter in the book enumerates the full 1,000-fern and flowering plants of eastern America which are useful or which could be used as food. They are arranged systematically by the authors, by families, following the sequence now generally accepted by botanists. The title of the book is misleading because the writers have searched with care the writings of others, in various parts of America, Europe and eastern Asia, and as a result a large mass of data has been accumulated. Outline drawings and photographs help to make the book a valuable source of information in these days of ration books and coupons.

Book Review by W. R. Simmons

Emulsion Technology, a symposium. Chemical Publishing Co., Inc., 26 Court St., Brooklyn, N. Y. Price \$5.00.

An emulsion is a suspension of extremely fine particles of a liquid in another liquid. When you follow the doctor's advice to shake an oily medicine well before taking, you are creating an emulsion.

New experiments are described that create emulsions by agitating the liquids with high-frequency sound waves, too high to be heard by the human ear. These waves may also destroy the effect they create, but are of deep scientific interest.

The most novel practical aspect of emulsions described is their use in treatment of toxemic conditions. These conditions arise from the cre-

PRESIDENT'S CORNER

By
H. J. Donaldson



H. J. Donaldson

Well, folks, our membership race seems to have bogged down in the late winter snow. Sec. Simmons brot in the only new annual member this month. One new life member sent in \$10 without persuasion from anyone. After the depression of winter's cold and snow passes, when the ground warms and the buds begin to swell, when you folks begin to talk about the premiums listed in the March **Horticulture**, then I'll expect to see new members come pouring in.

President Michels of the Federation has an excellent suggestion in the "Gleanings" for those interested in plant testing. If her suggestion is carried out, it will add untold value to the results of this program. The most important event of the year will be our annual convention, to be held in Vermillion August 23-24. In line with the national trend vegetables will be featured, tho fruit and nursery stock will also be discussed. It may be an inconvenience for you to attend, with the present restrictions on travel, but if you don't, you'll miss the best convention we have had in years. The Vermillion Garden Club is making some elaborate plans for entertaining the attendants. Get busy with that premium list and send us in a lot of new members in April.

ation of toxins in the body by bacteria. These poisons are carried by the blood and attack body cells. When emulsions are injected into the blood stream, they pick up and hold the toxins, rendering them harmless. Cases are reported of quick recovery from pneumonia without the vicious damage that usually accompanies the disease and in a much shorter time.

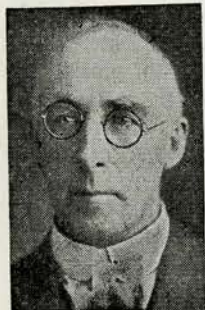
The chapter devoted to emulsions in agricultural spraying delves into the history of the subject, explains some past failures and gives a clear insight into the principles involved. The reader is told how the poison sprays attack both biting and sucking bugs and why sprays for one kind are ineffective against the other.

The technical reader will enjoy following the numerous mathematical equations that soar into the realm of physical chemistry. The layman can skip over these without losing any of the meaning of this interesting volume.



SECRETARY'S CORNER

By
W. A. Simmons



W. A. Simmons Our Vice President erupted considerable wisdom when he wrote: "I find that there is altogether too much enthusiasm on new varieties. They usually do look nice when the trees are young and thrifty but just a little later on when elements begin to affect them, they fade out. This doesn't make any difference to the man who has one in his yard as he'll swear by it until it is gone the same as one does about his own car. You really have to know the man in order to know just how good his report is." A letter to Mrs. Michels, from Mrs. J. E. Dvorak, Pres. of the Sioux City Federated Garden club, was sent to me. She invites any that can, to attend their Short Course and Flower Arrangement and Judging School, which will be held at the Martin Hotel, April 4th and 5th. Anyone that has ever attended one of their meetings will know that they are very much worth while and worth a long trip, to attend.

Keep a Garden and Keep On

If the garden is to keep you, you will have to keep the garden, is the word of advice from Victory Garden headquarters in the U. S. Department of Agriculture, and to keep it in at least four ways. Keep the garden, (1) planted, (2) cultivated, (3) growing and (4) healthy.

The Department is urging — and urging strongly—the need for more gardens, bigger gardens, better gardens this year than last—good as last year's gardens were. But it is not enough to respond to a spring enthusiasm or a plea to patriotism and start a garden. There is a fifth way, "keep on," that leads to worthwhile harvests, keeping on through summer heat when garden work is not quite pleasant—following through.

Keep the garden planted, make plans to keep the garden working. As soon as the earliest spring crops are used, the rows should be put to work again growing later maturing crops.

Keep the garden cultivated; keep the weeds down to prevent competition and waste of seed, soil and labor. Weeding and hoeing in summer may be disagreeable, but they are war work.

Keep the garden growing; prepare the soil well, apply the right fertilizers at the right time, water the garden when it needs it, and apply mulches to save moisture and labor.

Keep the garden healthy; control diseases and insect pests by planting the right varieties of vegetables, and by intelligent and faithful use of dusts and sprays.

These are condensed summaries of the four "keeps." State and Federal agricultural agencies are making special efforts to provide clear and simple information along these lines, because bountiful production in Victory gardens is highly important as a war measure. They are urging everyone who can do so to grow vegetables and to conserve a surplus for winter use. But gardening is not merely a spring task. It is a full season activity, if it is to be worth while. If a gardener has not the stamina to keep on, it is better to keep out.

Mrs. Rachel D. Wadsworth, of Bryant, writes: "Spring seems to be just 'round the corner, going the other way." She tells of a Malinda seedling that bore its first fruit last year. It is interesting, raising those apple seedlings, even tho one only gets a crab type of fruit. Am glad to see our members taking advantage of our extra good premium list. We probably will never have so many of the newer apple varieties to offer again. It should be easy for our members to get new members for us with the aid of this list.

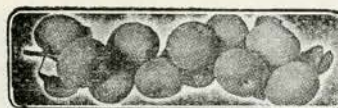
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of the head and the greenish patch back from the eye which characterizes the baldpate.

The status of the European widgeon in America has recently been reviewed by E. M. Hasbrouck of the U. S. National Museum. This species nests from Iceland all the way across northern Europe and Asia. It has been reported occasionally in North America, presumably having wandered here from Iceland by way of Greenland. Mr. Hasbrouck has brought together 596 records of its occurrence in America. The fall and winter records are scattered along both coasts. There are many spring and summer records from the Great Lakes region and a number from other points in the interior. It is believed that there may be a nesting area somewhere in Arctic America.

Hudson stated that the widgeon, next to the mallard, the most familiar fresh water duck in the British Isles, where it was a winter visitor near the coast but nested in parts of Scotland. By way of exchange, the baldpate has been recorded in the British Isles.

Foxtail says: Maybe this country is in the fix it's in because farmers has had too much agricultural counsel and not enough farm advice.



ROSE BUG REMEDY

By A. L. Truax



A. L. Truax

If the roses in your Dakota gardens do not bloom satisfactorily, it is most likely due to the curculio, a small reddish-brown snout beetle, less than $\frac{1}{4}$ inch long, about one-third of which is a snout or proboscis. With this it pierces the rose buds and their young stems and sucks out the juice until the bud drops over and withers. I have seen bushes on which not a bloom opened, from this cause. As nearly as can be ascertained, these beetles breed on the wild prairie roses, laying their eggs in the rose hips. These develop into a larva which drops to the ground in August and September and emerges as a beetle the next May or June. This is at once the most difficult and destructive rose pest of which I have knowledge. As they do not eat the foliage, stomach poisons like arsenate of lead or paris green have little or no effect on them and their horny shells are impervious to contact poisons like pyrethrum or nicotine sulphate except in the most powerful doses. Hand picking into a vessel containing kerosene is recommended but that, the effective as far as it goes, is a twelve-hour a day job, as the things have wings and as soon as one installment is disposed of another may move in, fifteen minutes later, and one of these malefactors is capable of ruining a dozen buds at one sitting.

After trying everything recommended with only partial success, I think I have hit on a remedy which is 75% to 90% effective and which I pass on to others for what it is worth. Dissolve one cubic inch of fishoil soap in one gallon of hot water. Allow this to cool then add $1\frac{1}{2}$ teaspoonsful of Black leaf 40, or any other good nicotine sulphate and one heaping tablespoonful of arsenate of lead, and stir thoroly. Begin spraying the rose bushes as soon as the leaves begin to unfold and continue every two or three days until the blossoms begin to open. As soon as the blossom buds appear, supplement this by picking or shaking the bugs into a wide basin or pan of kerosene. I saved fully 90% of my blooms this year by this treatment, whereas in previous years the mortality had been as high as 50% or more. I suspect that the preparation given above is really a repellent rather than an actual poison. Anyway I have seen the curculios sitting on the ends of the branches and waving their probosces in the air in evident disgust, whether because of the nau-

seating odor of the fishoil soap or the caustic effect of the Black leaf 40 I am unable to say. They left as soon as they recovered, probably to wend their way back to the wild roses whence they came. The arsenate of lead may not have burned them much, but it is too valuable an insecticide against all chewing insects to be omitted from any poison spray. By taking care to plant the rose bushes in ground not infested with tree roots, giving them plenty of water during the growing season, and spraying properly against insect pests, the really hardy roses, such as the rugosas, Scotch roses and probably many others can be successfully grown in the Dakotas. Mildew and blackspot, which are rose diseases prevalent and often fatal in the east are almost unknown here, where summer heat, drought and insect pests are the rose's worst enemies.

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esteem. Prominent are two of Skinner breeding—Hedin, mauve, and Hiawatha, red. Of the Preston hybrids from the Ottawa Farm, distinctive are Audry, Bellicent, Desdemona, Elinor, Isabella, Jessica, Miranda, Regan and Valera. Second generation hybrids introduced by the Morden Station include: Royalty, deep purple; Redwine, rich wine-red; Coral, clear durable pink; Dawn, pale pink; Swanee, white, somewhat flushed pinky mauve in bud stage; Nocturne, hazy lilac-blue.

The Morden varieties were selected for boldness of spike and open face of flower, as well as for impressive colour hues.

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it in lily ponds and other places where the water is stagnant and it will only wither and die. It may be grown in moist and shady places when planted in a garden however, especially if there is an abundance of water in well-drained soil.

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wind protection should produce enough fruit for the average family.

The sandcherry has not been extensively planted but the named varieties are now worthy of a place in the home fruit planting. This plant will produce a good yield when two years old. While the fruit is better as a cooked product it is of high enough quality to be eaten fresh. The sandcherry, now frequently called bush cherry, is very hardy and can be grown in any part of the state. Twelve or more plants of the best varieties should go in every fruit planting.

A planting of these three fruits will do much to supply fruit at an early date when the supply is likely to be limited and the price high.